

CLAIMS

What is claimed is:

1. An end securing device for a telescopic tube, including a telescopic tube made up of an inner and outer hollow tubes, and a vacuum sucker attached to both ends of the telescopic tube thereof wherein the vacuum sucker is made up of a suction cup, a retaining piece, a control piece, and an activation piece; the present invention being characterized by that,

--the suction cup has a conic suction space defined at the base thereon and a driven post protruding at the other side to be engaged with the retaining piece thereby, and the retaining piece has a registration column and a central through hole extending at one side thereof in sleeve engagement with a coupling groove of the control piece; the driven post of the suction cup is led through an engaging through hole of the control piece to be securely screwed up to a linkage rod of the activation piece thereof; a pair of opposite stop ribs is symmetrically protruding at the inner wall of the central through hole of the registration column thereof to be mutually abutted against a pair of oblique conic sliding guide plates extending at one side of the engaging through hole of the control piece thereby;

--when the control piece is rotated to one side via a push block, the coupling groove thereof is moved along the registration column of the retaining piece, permitting the sliding guide plates thereof to ascend along the stop ribs of the retaining piece till the control piece abuts tight against the activation piece so as to move the driven post thereof and raise upwards the suction cup therewith to form an empty vacuum space at the suction space therein for secure attachment of the suction cup to the surface of walls thereon; thus, the telescopic tube is easily and quickly adjusted in length by direct stretching or pushing without a spring unit applied therein and securely mounted onto the walls via the vacuum

suckers thereof; otherwise, the push block of the control piece is pushed to the other side to descend the sliding guide plates of the control piece, releasing the activation piece from the pressing abutment of the control piece thereof and descending the suction cup therewith for air to let in to the suction space thereof so as to detach the suction cup from the walls for the retrieval of the telescopic tube thereof.

2. The end securing device for a telescopic tube as claimed in Claim 1 wherein the driven post of the suction cup thereof is provided with an external threaded section at the outer periphery thereon.

3. The end securing device for a telescopic tube as claimed in Claim 1 wherein the suction cup is circumscribed by an annular limiting groove at the edge of the outer periphery thereon, and an annular inserting rib protruding at both sides of the limiting groove thereof respectively.

4. The end securing device for a telescopic tube as claimed in Claim 1 wherein the retaining piece has a conic retaining chamber concaved at one side thereon communicating with the central through hole of the registration column thereof, and two annular abutting ribs protruding at the outer periphery of the retaining chamber thereon to form an engaging groove there-between.

5. The end securing device for a telescopic tube as claimed in Claim 1 wherein the stop rib of the retaining piece thereof is provided with a step-wise engaging leg cut at one end thereon.

6. The end securing device for a telescopic tube as claimed in Claim 1 wherein the sliding guide plate of the control piece is provided with an L-shaped locating leg cut at one end thereon, and a level limiting plane disposed at one lateral side thereon.

7. The end securing device for a telescopic tube as claimed in Claim 1 wherein the control piece thereof is provided with a ball-like push block protruding properly at the outer periphery thereon.

8. The end securing device for a telescopic tube as claimed in Claim 6 wherein the control piece also includes a receiving chamber with a stop ring disposed at the other side of the engaging through hole thereof, correspondingly matched to the inner and outer tubes of the telescopic tube respectively for mutual registration thereby.

9. The end securing device for a telescopic tube as claimed in Claim 1 wherein the activation piece is made up of a hexagonal linkage rod with a screw hole disposed at one end therein, and a support section of larger diameter attached at the other side of the linkage rod thereof.